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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,125	11/29/2000	Masayuki Arai	P20247	9044
7055	7590	04/15/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			HENN, TIMOTHY J	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 04/15/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

SC

Office Action Summary

Application No.

09/725,125

Applicant(s)

ARAI, MASAYUKI

Examiner

Timothy J Henn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ²⁹~~27~~ November 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the labels "Speed Signal Feed Back" and "Position Signal Feed Back" in figure 1 overlap multiple blocks and are difficult to read. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawahara (US 5,325,149).

[claim 1]

4. In regard to claim 1, note that Kawahara discloses a diaphragm control apparatus for a lens of a camera having a diaphragm driving device (Figure 3, Item 9) for one of opening and closing a diaphragm in accordance with a diaphragm control signal (Figure 3, Output of Comparator 13), comprising: a remote diaphragm control device for outputting a remote diaphragm control signal which is adapted to set an optional diaphragm position (Figure 3, Items 14 and 15; Column 4, Lines 24-30); a

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diaphragm control signal setting device for setting a diaphragm control signal in accordance with the remote diaphragm control signal and for outputting the diaphragm control signal to the diaphragm driving device to thereby move the diaphragm to a diaphragm position corresponding to the diaphragm control signal (Figure 3, Items 20 and 21; Column 2, Lines 3-30); and a power source for supplying power to the diaphragm control signal setting device (The office notes that a power supply is inherent to any electronic systems such as the camera of Kawahara), said diaphragm control signal setting device being provided with a memory for storing the diaphragm control signal when the power supply is interrupted (Figure 3, Item 20; Column 4, Lines 39-43), so that the diaphragm control signal which has been set at the interruption of the power supply can be output when the power supply is supplied again (Figure 6; Column 7, Lines 1-32).

[claim 6]

5. In regard to claim 6, note that Kawahara discloses a camera with an automatic control device for outputting a diaphragm control signal based on an image signal of the camera (Column 1, Lines 30-66), a manual or "remote" control device for outputting a diaphragm control signal (Column 1, Line 67 – Column 2, Line 30) and a switching signal output device for switching between automatic and remote control (Figure 3, "AUTOMATIC/MANUAL SWITCHING")

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 4,651,216) in view of Takashi et al. (JP H06-268902A).

[claim 1]

8. In regard to claim 1, note that Arai et al. discloses a diaphragm control apparatus for a lens of a CCTV camera (Column 1, Lines 38-51) having a diaphragm driving device (Figure 1, Item M; Column 2, Lines 23-24) for one of opening and closing a diaphragm in accordance with a diaphragm control signal (Column 2, Lines 30-33), comprising: a remote diaphragm control device for outputting a remote diaphragm control signal which is adapted to set an optional diaphragm position (Figure 1, "remote control circuit"); a diaphragm control signal setting device for setting a diaphragm control signal in accordance with the remote diaphragm control signal and for outputting the diaphragm control signal to the diaphragm driving device to thereby move the diaphragm to a diaphragm position corresponding to the diaphragm control signal (Figure 1, "driver circuit"); and a power source for supplying power to the diaphragm control signal setting device (The office notes that electric devices such as the motors and control circuits of Arai et al. must inherently have a power source of some kind). Therefore, it can be seen that Arai et al. lacks a diaphragm control signal setting device being provided with a memory for storing the diaphragm control signal when the power

supply is interrupted, so that the diaphragm control signal which has been set at the interruption of the power supply can be output when the power supply is supplied again.

9. Takashi et al. discloses a diaphragm control device which includes a nonvolatile memory to store a diaphragm setting value prior to a power interruption so that a time until a picture of the previously set luminance distribution can be stored again after the power is reinstated can be shortened (Abstract; Paragraph 0013). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a nonvolatile memory in the diaphragm setting device of Arai et al. to shorten the time that a picture of a predetermined luminance distribution can be stored after a power interruption is shortened.

[claim 5]

10. In regard to claim 5, note that Arai et al. in view of Takashi et al. does not specifically disclose a remote diaphragm control device that is provided separately from the CCTV camera. However, it is well known in the art to locate the remote control device at a separate location from the device to be controlled to allow the user to activate the controlled device without having direct physical access to the controlled device (Official Notice). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the remote diaphragm control device at a separate location from the CCTV camera to allow the user to control the camera without having direct physical access to the camera.

[claim 6]

11. In regard to claim 6, note that Arai et al. discloses a diaphragm control apparatus for a lens of a CCTV camera, wherein said CCTV camera lens comprises an automatic control device for outputting a diaphragm control signal based on an image signal of the CCTV camera to the diaphragm driving device to thereby automatically control the diaphragm (Figure 1, "automatic control circuit"), and a switching device for switching an automatic diaphragm control in which the diaphragm is automatically controlled by the automatic control device (Figure 1, Item SW₂, SW₃, SW₄) and a remote diaphragm control in which the diaphragm is controlled by the remote diaphragm control device (Figure 1, "remote control circuit"), said remote diaphragm control device being provided with a switching signal output device for operating the switching device (Column 2, Lines 9-37).

12. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US 4,651,216) in view of Takashi et al. (JP H06-268902A) as applied to claim 1 above, and further in view of Yamamoto (US 4,410,915).

[claim 2]

13. In regard to claim 2, note that Arai et al. in view of Takashi et al. disclose all limitations of claim 1, and further discloses a system comprising a memory, wherein the remote diaphragm control signal is input when a power supply is supplied. Therefore, it can be seen that Arai et al. in view of Takashi et al. lacks a digital potentiometer which varies a wiper position of a variable resistor and outputs the remote diaphragm control signal corresponding to the wiper position.

14. Yamamoto discloses a diaphragm control system in which a potentiometer is changed in order to provide a control signal for driving a diaphragm (Figure 2; Column 3, Lines 44-48) to drive the iris or "diaphragm" into any desired aperture condition. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a potentiometer as disclosed by Yamamoto to make it possible to drive the diaphragm to any desired aperture condition. It can further be seen that Arai et al. in view of Takashi et al. in further view of Yamamoto lacks a potentiometer which is a digital potentiometer. However, it is well known in the art to replace analog potentiometers such as the one disclosed by Yamamoto with digital potentiometers in order to increase the accuracy of the potentiometer (Official Notice). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a digital potentiometer instead of the analog potentiometer of Yamamoto to increase accuracy.

[claim 3]

15. In regard to claim 3, note that Arai in view of Takashi et al. in further view of Yamamoto disclose all limitations of claim 2, and further disclose a system which rewrites and stores a value corresponding to the wiper position in a memory, holds the value stored in memory when the power supply is interrupted, reads the value when the power supply is recommenced and outputs the remote diaphragm control signal corresponding thereto (Takashi et al.; Paragraph 0013). Therefore, it can be seen that Arai et al. in view of Takashi et al. in further view of Yamamoto lacks a diaphragm control apparatus wherein the digital potentiometer maintains the wiper position of the

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variable resistor when the supply of the remote diaphragm control signal is stopped.

However, it is well known in the art to only transmitting control signals when the state of the system is desired to be changed, and in absence of those control signals to maintain the system at a steady state to save power by not requiring a control signal to be transmitted at all times (Official Notice). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to maintain the wiper position of the variable resistor when the supply of the remote diaphragm control signal is stopped to save power by not transmitting a control signal at all times.

[claim 4]

16. In regard to claim 4, note that the memory of Takashi et al. is a non-volatile memory (Abstract; Paragraph 0013).

17. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara (US 5,325,149) in view of Yamamoto (US 4,410,915).

[claim 2]

18. In regard to claim 2, note that Kawahara disclose all limitations of claim 1, and further discloses a system comprising a memory, wherein the remote diaphragm control signal is input when a power supply is supplied. Therefore, it can be seen that Kawahara lacks a digital potentiometer which varies a wiper position of a variable resistor and outputs the remote diaphragm control signal corresponding to the wiper position.

19. Yamamoto discloses a diaphragm control system in which a potentiometer is changed in order to provide a control signal for driving a diaphragm (Figure 2; Column 3, Lines 44-48) to drive the iris or "diaphragm" into any desired aperture condition. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a potentiometer as disclosed by Yamamoto to make it possible to drive the diaphragm to any desired aperture condition. It can further be seen that Kawahara in further view of Yamamoto lacks a potentiometer which is a digital potentiometer. However, it is well known in the art to replace analog potentiometers such as the one disclosed by Yamamoto with digital potentiometers in order to increase the accuracy of the potentiometer (Official Notice). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a digital potentiometer instead of the analog potentiometer of Yamamoto to increase accuracy.

[claim 3]

20. In regard to claim 3, note that Kawahara discloses a system in which a remote diaphragm control signal corresponding to an open or close signal is output when the diaphragm is desired to be changed, and a hold signal which maintains the diaphragm at the current position when no change is desired (Figure 6). In combination with the potentiometer of Yamamoto a system which maintains the wiper position of the variable resistor when the open/close remote diaphragm control signal is stopped is inherent. The office also notes that Kawahara discloses a system which stores the wiper position in a memory, holds the corresponding value stored in the memory when a power supply

is interrupted, reads the corresponding value from the memory when the power supply is recommenced and outputs the remote diaphragm control signal corresponding thereto (e.g. Figure 6; Column 3, Lines 39-43; Column 7, Lines 1-32).

[claim 4]

21. In regard to claim 4, note that Kawahara in view of Yamamoto lacks a memory which is a non-volatile memory. However, it is well known in the art to use non-volatile memories when the data is required to be stored even at times when a power supply is not connected such as when the camera of Kawahara is turned off (Official Notice). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a non-volatile memory as the memory of Kawahara to store data even when the memory does not have a power supply connected to thereto.

22. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara (US 5,325,149).

[claim 5]

23. In regard to claim 5, note that Kawahara lacks a remote diaphragm control device which is provided separately from the camera. However, it is well known in the art to locate the remote control device at a separate location from the device to be controlled to allow the user to activate the controlled device without having direct physical access to the controlled device (Official Notice). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the remote diaphragm control device at a separate location from the camera to allow the

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user to control the camera without having direct physical access to the camera.

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J Henn whose telephone number is (703) 305-8327. The examiner can normally be reached on M-F 7:30 AM - 5:00 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJH
4/7/2004


NGOC-YEN VU
PRIMARY EXAMINER